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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Blumenau, et al.
Serial No: 09/343,969
Filed: June 30, 1999
For: USER INTERFACE FOR MANAGING STORAGE IN A STORAGE
SYSTEM COUPLED TO A NETWORK

Examiner: Dung C. Dinh
Art Unit: 2153

Confirmation No.: 8523

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The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 23rd day of June, 2004.


Richard F. Giunta, Reg. No. 36,149

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR RECONSIDERATION

In response to the Office Action mailed January 23, 2004, Applicants respectfully request reconsideration. Claims 1-85 are pending in this application. The application as presented is believed to be in condition for allowance.

Claims 1 and 37 stand rejected under 35 U.S.C. §103(a) as purportedly being obvious over Chen (6,041,345) in view of Bormann (6,157,378). Claims 2-36 and 38-61 stand rejected under 35 U.S.C. §103(a) as purportedly being obvious over Chen in view of Bormann and further in view of Jacoby (5,768,552). Finally, claims 62-85 stand rejected under 35 U.S.C. §103(a) as purportedly being obvious over Chen in view of IBM Technical Disclosure Bulletin (TDB) No. NB9203306 (IBM TDB). Each of these rejections is respectfully traversed.

Rule 132 Declaration

To further the prosecution of this application, Applicants submit herewith a declaration under 37 C.F.R. §1.132 from Stephen J. Todd (hereinafter “Todd Declaration”), a software engineer at EMC Corporation, the assignee of the present application, with over eighteen years of experience in the creation of storage system software products. (Todd Declaration, ¶1). Mr. Todd’s declaration is helpful in understanding how one skilled in the art would have understood the teachings of the prior art of record, and is believed to resolve several issues that have been the subject of dispute between Applicants and the Examiner during prosecution of this application. It is respectfully asserted that the rejections cannot properly be maintained in view of Mr. Todd’s declaration.

Rejections Under Chen and Bormann

The Office Action rejected claims 1 and 37 under 35 U.S.C. §103(a) as purportedly being obvious over Chen in view of Bormann. Applicants respectfully traverse this rejection for reasons discussed in Applicants’ prior response of October 14, 2003. In addition, Mr. Todd disagrees with several of the characterizations of the references that underlie the rejection, as well as the assertion that the prior art of record provides any motivation for the combination alleged.

1. One Skilled in the Art Would Not Have Been Motivated By
Bormann to Modify Chen In Any Way

The Office Action concedes that Chen does not teach displaying a representation of processors logged into the storage system, but asserts that, “it would have been obvious for one of skill in the art to apply the teaching of Bormann et al. to Chen et al. because it would have provided a graphical interface for coordinating and managing accesses to the storage system of Chen.” (Office Action, page 3). Applicants continue to disagree for the reasons previously discussed. Significantly, Mr. Todd also disagrees.

Mr. Todd believes that one of skill in the art would not have been motivated by Bormann to modify Chen in any way. (Todd Declaration, ¶4). The user interface of Bormann displays operator identifiers and the login state of those identifiers so that multiple maintenance

technicians logged into the switch do not interfere with each other's actions. (Todd Declaration, ¶4). Mr. Todd states that he sees no reason to incorporate such a user interface into the system disclosed by Chen because there is no disclosure in Chen that multiple maintenance technicians may be logged in to the file server at the same time, giving rise to the possibility of interference between the actions of each technician. (Todd Declaration, ¶ 4).

It is respectfully asserted that the rejection of claims 1-61 under 35 U.S.C. §103 over a combination of references including Chen and Bormann cannot properly be maintained in view of Mr. Todd's declaration, as the declaration establishes that one of skill in the art would not have been motivated by Bormann to modify Chen in the manner alleged in the Office Action. Thus, it is respectfully asserted that these rejections should be withdrawn.

2. The Combined Teachings of Chen and Bormann Would Not Disclose What is Recited In Claim 1 or Claim 37

Mr. Todd states that he does not believe the combined teachings of Chen and Bormann would suggest to one of skill in the art to display a representation of each of a plurality of host computers logged into a storage system over a network and that identifies each of such hosts as being logged into the storage system. (Todd Declaration, ¶ 5). It is Mr. Todd's belief that one of skill in the art following the teachings of Chen and Bormann would arrive at a system that would allow users to log in to the Internet Appliance of Chen, and that might include a distributed network switch that may have a graphical user interface to display operators logged in to the switch, as taught by Bormann. (Todd Declaration, ¶5). Thus, the system of Chen, which the Office Action concedes does not show all of the limitations of claim 1 or claim 37, would not have been modified in any way.

3. The References Do Not Show A Plurality of Hosts Logged Into A Storage System

Even if one skilled in the art were motivated by Bormann to provide a graphical user interface to the system of Chen, which Mr. Todd's declaration establishes is not the case, the modified system of Chen would still not meet claim 1 or claim 37, as Mr. Todd makes clear that Chen fails to teach a plurality of host processors logged into a storage system.

At page 3, the Office Action asserts that, “Chen teaches a storage system that is assessable [*sic*] by a plurality of processors over a network,” and that, “Chen teaches assigning to each processor a portion of the storage system.” Mr. Todd disagrees with both assertions. (Todd Declaration, ¶3).

Mr. Todd states that the only processor accessing the mass storage device in Chen is the Internet Appliance 110, and that Chen does not disclose allocating a portion of the storage system to each host processor. (Todd Declaration, ¶ 3). The portion of Chen relied upon in the Office Action relates to blocks of storage being allocated to an application program, not to particular processors. (Todd Declaration, ¶3). In fact, Chen discloses the storage device 180 as being allocated only to a single processor (i.e., Internet Appliance 110), as the workstations 130-170 only access the Internet Appliance and are not even aware that the storage device 180 exists. (Todd Declaration, ¶3).

In view of Mr. Todd’s Declaration, it is respectfully asserted that the assertions in the Office Action that Chen shows a plurality of processors accessing (or logging into) a storage system cannot properly be maintained. Thus, as made clear by Mr. Todd’s declaration, there is no disclosure or suggestion in Chen or Bormann, taken alone or in combination, of “displaying a first representation of each of the plurality of host processors that is logged into the storage system over the network, wherein the first representation identifies each of the plurality of host processors that is logged into the storage system as being logged into the storage system,” as recited in claim 1.

Similarly, Mr. Todd’s declaration makes clear that there is no disclosure in Chen or Bormann, taken alone or in combination, of “displaying, on a display in the computer system, a first representation of each of the plurality of host processors that is logged into the storage system over the network, wherein the first representation identifies each of the plurality of host processors that is logged into the storage system as being logged into the storage system,” as recited in claim 37.

4. Conclusion

In view of the foregoing, claims 1 and 37 patentably distinguish over Chen and Bormann. Accordingly, it is respectfully requested that the rejections of claims 1 and 37 under 35 U.S.C. §103(a) be withdrawn.

Claims 2-36 depend from claim 1 and claims 38-61 depend from claim 37. Each of these claims is patentable for at least the same reasons as the independent claim from which it depends. Accordingly, it is respectfully requested that the rejection of claims 2-36 and 38-61 be withdrawn.

In view of the foregoing, it is respectfully requested that the rejections of claims 1-61 under 35 U.S.C. §103 as obvious over Chen and Bormann be withdrawn.

Rejections Under Chen and IBM TBD

The Office Action rejected claims 62-85 under 35 U.S.C. §103(a) as purportedly being obvious over Chen in view of IBM Technical Disclosure Bulletin (TDB) No. NB9203306 (IBM TDB). This rejection is traversed, and it is respectfully asserted that the rejection cannot properly be maintained in view of Mr. Todd's declaration.

The Office Action asserts that, "Chen discloses method [*sic*] for changing access privileges to portion [*sic*] of data on a storage system over a network." (Office Action, page 5). Mr. Todd points out that this is a mischaracterization of Chen. Specifically, Mr. Todd points out that neither Chen nor IBM TBD "even discloses volumes of data having different access privileges, let alone the modification of access privileges for a volume data." (Todd Declaration, ¶6).

The Internet Appliance 110 and workstations 130-170 of Chen do not access the mass storage device directly, as the mass storage device is presented only to the file system executing on the file server 120, so that the Internet Appliance and work stations can only access the mass storage device indirectly through the file system. (Todd Declaration, ¶6). Mr. Todd believes that there would be no reason for storage space on the mass storage device 180 of Chen to have different modifiable access privileges, as the only device directly accessing mass storage device 180 in Chen is the file server. (Todd Declaration, ¶6). Thus, Mr. Todd makes clear that one

skilled in the art would not consider Chen to teach various volumes of storage that have different access privileges. (Todd Declaration, ¶6).

As Mr. Todd explains, the portion of Chen that the Examiner relies upon as being relevant to the claims relating to access privileges for volumes of data relates to a different concept. (Todd Declaration, ¶7). Specifically, the portion of Chen relied upon relates to controlling access privileges to the file server using a user name and password. (Todd Declaration, ¶7). As Mr. Todd makes clear, access by a user to a file system is not the same as access privileges to a volume of data from a host processor, as recited in claims 62, 68, 74 and 80. (Todd Declaration, ¶7).

Further, Mr. Todd establishes that if one of skill in the art were motivated by the IBM TBD reference to provide a graphical user interface for Chen, the graphical user interface would simply be used to establish a username and password, which does not relate to modifying access privileges for one of a plurality of hosts to a volume of data stored on a storage system having at least one other volume of data with different access privileges. (Todd Declaration, ¶ 8).

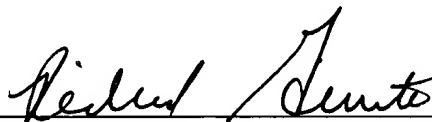
In view of Mr. Todd's declaration establishing that neither Chen nor the IBM TBD "even discloses volumes of data have different access privileges, let alone the modification of access privileges for a volume of data," it is respectfully asserted that the rejection of claims 62-85 under 35 U.S.C. §103 over Chen and the IBM TBD cannot properly be maintained. Thus, it is requested that this rejection be withdrawn.

CONCLUSION

In view of the foregoing remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes after this Request for Reconsideration that the application is not in condition for allowance, the Examiner is requested to call Applicants' attorney at the number listed below to discuss any outstanding issues relating to allowability.

If this response is not considered timely filed, and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by the enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,



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